

REMARKS

Applicants appreciate the detailed examination evidenced by the Office Action mailed May 14, 2008 (hereinafter "Office Action"). Independent Claims 1, 10, 19, 28, and 32 are amended to further clarify that the axis of rotation lies in planes corresponding to the 2-dimensional cross-sections. Claims 1, 3-10, 12-19, 21-28, 30-32, 34 and 35 are pending. Applicants have provided remarks herein detailing why the cited references do not disclose all the recitations of the pending claims. Applicants respectfully submit that the pending claims are patentable for at least the reasons described herein.

Independent Claims 1, 10, 19, 28, and 32 are patentable over Chung et al.

Claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30-32 and 34-35 stand rejected under 35 U.S.C. § 102 as being unpatentable over "Integrated Simulation of Equipment and Topography for Plasma Etching in the DRM Reactor," by W.Y. Chung, J.J. Oh, T.K. Kim, J.K. Shin, K. Seo, Y.K. Park, and J.T. Kong, 2000 IEEE (hereinafter "Chung"). Applicants respectfully submit that the rejections are improper for at least the reasons that Chung does not disclose or suggest all of the recitations of independent Claims 1, 10, 19, 28 and 32. For example, Claim 1, as amended, recites, in part:

computing plasma characteristics *for each of a plurality of cross-sections of the reaction chamber* from the data, the plurality of cross-sections being selected from the 3-dimensional distribution of the static electromagnetic field; and...

wherein the plurality of moving **magnets rotate about an axis of rotation that lies in a plurality of planes corresponding to each of the plurality of cross-sections.** (*Emphasis added.*)

Claims 10, 19, 28 and 32 include similar recitations. As a general matter, Applicants note that, in contrast with the Office Action allegation, Chung does not disclose or suggest that the axis of rotation lies in planes corresponding to each of the plurality of cross-sections, as recited in Claim 1. For example, referring to FIG. 5, an axis of rotation about which the moving magnets rotate lies in a plurality of planes corresponding to each of the plurality of cross-sections I, II and III the axis of rotation. See Specification, paragraph 0055. Applicants respectfully submit that the clarifying amendments include no new matter as the configurations recited therein are clearly illustrated in FIG. 5.

The Office Action concedes that "Chung et al fails expressly disclose an axis of rotation, and wherein each of the plurality of cross-sections includes the axis of rotation." Office Action, page 4. The Office Action continues stating that "without having an axis of rotation, it is difficult to rotate and induce a magnet field." Office Action, page 4. The Office Action then concludes that:

The 2-dimensional cross-sections are portion of the magnetic field distribution, which are induced by rotating magnets about an axis of rotation. Therefore, it is inherent each cross sections includes an/the axis of rotation.

Office Action, page 5. Applicants respectfully disagree. It is well-established law that inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *See, e.g., Ex Parte Skinner*, 2 U.S.P.Q.2d 1788, 1986 WL 83361 (Bd. Pat. App. & Interferences 1986). Additionally, anticipation by inherency requires that 1) the missing descriptive matter be "necessarily present" in the prior art reference and that 2) it would be so recognized by persons of ordinary skill in the art. *See Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991).

Applicants respectfully submit that the conclusory reasoning in the Office Action that Chung inherently discloses that the cross-sections include the axis of rotation is based on merely a possibility and no more. In this regard, such recitation may not be properly regarded as inherent. Applicants submit that there are an infinite number of possible cross-sections, for which Chung provides no discussion. For example, Chung does not even disclose the orientations of such cross-sections relative to the reaction chamber, much less that they include the axis of rotation.

Additionally, there is no teaching or suggestion in Chung that the cross-sections "necessarily" include the axis of rotation or that such necessity would be so recognized by persons of ordinary skill in the art.

Moreover, as the Office Action concedes, Chung does not include discussion directed to the axis of rotation. Applicants respectfully submit that if, as alleged by the Office Action, the cross-sections described in Chung necessarily include the axis of rotation, Chung would have at least mentioned such axis. Accordingly, Chung's failure to even mention the axis of rotation provides further evidence that Chung does not inherently or expressly disclose or

suggest "wherein the plurality of moving magnets rotate about an axis of rotation that lies in a plurality of planes corresponding to each of the plurality of cross-sections," as recited in Claim 1.

Additionally, Chung does not disclose or suggest that the cross-sections commonly include the axis of rotation and thus does not provide that the intersection line between the cross-sections include the axis of rotation. Since Chung does not expressly provide any basis to select the cross-section, and more particularly, in the manner recited in Claim 1, there are many possibilities regarding the selection of cross-sections in a variety of arbitrary ways. For example, since Chung does not provide any basis for selecting the cross-sections, they may be selected as normal to and/or parallel with the axis of rotation.

For at least the foregoing reasons, Applicants submit that Claim 1 is patentable. Applicants submit that independent Claims 10, 19, 28 and 32 are patentable for at least similar reasons.

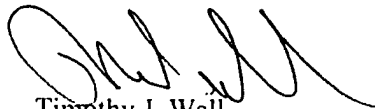
The Dependent Claims Are Patentable

Applicants submit that the dependent claims are patentable at least by virtue of the patentability of the various ones of independent Claims 1, 10, 19, 28, and 32, from which they depend.

Conclusion

Applicants submit that the claims are patentable for at least the reasons discussed above. Applicants respectfully request allowance of the claims and passing of the application to issue in due course. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,



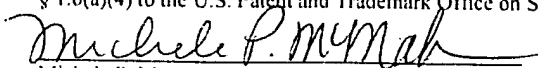
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